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OFFICIAL NEWSLETTER OF  
THE LONG ISLAND COMPUTER ASSOCIATION, INC.

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HOURS	MON WED FRI	10-6
	TUE THU	10-8
	SAT	10-5

## PRESIDENT'S MESSAGE NOVEMBER 1983

These are most interesting times in which we live. Certainly this is true when we consider the exponential growth of so-called "high technology". But these times are interesting from quite another point of view. Just look at how we each tend to our livelihood.

More families than ever before have multiple incomes, not just because both husbands and wives work, nor because of moonlighting for additional wages. A surprising number of people have opened up their own cottage-style businesses. These enterprises include both conventional and mail-order retailing and the sale of consulting services. I'd venture to say that a significant number of LICA Associates are engaged in such activities. For many a hobby has turned into a source of financial support.

For my part, I see only one difficulty with this trend. The customers of hobbyist-run businesses are frequently other hobbyists. We run the same risk as those in multi-level marketing enterprises: we may run out of customers who are not also our own suppliers. We also find ourselves in the peculiar position of having to guarantee support to customers who are no longer removed geographically or socially from ourselves—we are selling to our friends and neighbors.

As President of this Corporation the past two years, I've been hit with an increasing number of comments and complaints from LICA Associates who feel less than honorably served by others among us. Having neither adequate time to investigate, nor the Solomonic wisdom to adjudicate these squabbles, I am able only to make mention of these situations.

Ours is a complex hobby. Our playthings are complex devices, and the software systems operating on them are likewise complex. These are some of these reasons that we have joined together in this not-for-profit organization. A spirit of good will and cooperation are essential for our continued growth and effectiveness. So please, those of you who are also commercially involved with computers and computing - be especially ethical in all of your dealings with hobbyists like yourselves. You potential customers should also bear in mind that a certain amount of discretion and restraint in purchasing the tools of our hobby is a good thing. After all, you're not "dumbbells". Computers are for thinking people. Don't stop thinking when you power down your machines. am

## DIF PROGRAM FOR APPLE II COMPUTERS

We recently were required to convert a commercial software product from AppleSoft BASIC to BASIC-80, in order to permit its transportation to and subsequent compilation onto a multi-user Z80-based system. Several weeks into the project the original vendor issued an updated diskette. Our problem was to determine exactly what changes and enhancements, if any, had occurred since the release of the prior version. Public domain software for CP/M users includes several file comparison programs. As has so often happened before, we had neither the time nor resources to determine if similar utilities exist for APPLE II computer users, so we wrote our own. The program is called DIF. It can compare two AppleSoft BASIC source files, by character within line, and produces a report of any line containing so little as a single altered control character. Operation on the largest possible files that can be run on an APPLE takes a few minutes at the most.

Copies of the DIF program, the utility to convert an AppleSoft BASIC program into a text file, and an accompanying documentation file are \$5 postpaid. It is available without charge to LICA members.

## MONTHLY MEETINGS

All meetings, except IBM PC/UG are held at the New York Institute of Technology, Old Westbury Campus LICA meets each month on the third Friday evening at 8:00 in Room 508, Building 500

See the back cover of the Stack for map and directions Our next general meeting will be held on the 18TH of November. Our guest speaker will be Mr. Ron Richards who will speak on the future of rotating media. When Mr. Richards addressed LICA in 1982 he was brought back for a second discussion by public demand.

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## SECRETARY'S REPORT ON LICA MEETING OF 21 OCTOBER 1983

Al Stone, our president, announced that the principal speaker of the evening was called away unexpectedly. However Tom Golway would continue his discussion of Local Networks. The Beginners Group would be conducted by Josh Weinberg after the break.

Stan Misel asked for a volunteer to give an introductory talk on computers to the Friends of the Mineola Library. The talk will be scheduled for the first Friday of either May or June, 1984. Volunteers should contact Stan or Jim Rooney at 100 Garden City Plaza.

Stan also reported that about ten LICA members have logged on to his Zenix system via modem as described in a previous Stack. Volumes 139, 142, 144, 145 of the SIG/M library are on line and can be downloaded. The phone number is 541-7949.

Irwin Weitman asked if anyone had information about a CP/M 2.2 BIOS to run on a Cromemco computer. Please call him at 266-2428.

Mike Bonadio wanted information on an interface between an Apple IIe and a Smith-Corona TP-2 or TP-2+ printer. He can be reached at (212) 463-2129.

Stu Greenberg spoke about the recently reported FBI raids on amateur computer operators. He said that although there were no formal charges or arrests, their equipment was confiscated. Stu talked about the dangers inherent in such raids and in his opinion they were done to scare people. Other members in the audience had different opinions and a lively discussion took place.

There was a discussion of sending digital data over ham radio. Stu Domber said he had done this successfully a couple of years ago.

A motion to discuss the subject of Computer Security at the next meeting was passed.

Al Levy reported on the Third Annual LICA Computer Fair. He is looking for a location. Some of the places he is investigating are: Holiday Inn in Hempstead, Mid Island Plaza, Lymark location, Belmont, Kennedy Airport, Roosevelt Raceway and NYIT. The date has been established as the first Saturday in June 1984.

Ed Zuilkowski reported on the Nominating Committee. It met last Saturday and came up with a tentative election slate. However there has not been time to contact everyone to get their acceptance. There will be a formal listing of the proposed candidates in the next issue of the Stack. Anyone interested in making a nomination for any of the club's elective offices should contact Ed.

Ken reported on the recent CP/M show in Boston. There were many new products shown and the seminars had big name speakers. He also summarized other computer shows held in the area about the same time.

After the break, Tom Golway of Control Information Systems continued his lecture series on Local Networks. His first lecture on this subject was given at the August LICA meeting. Also a large part of the audience attended another session of Josh Weinberg's Beginners Class, held at the same time.

Frank Davidoff, Secretary

### NOTICE

Mr. Davidoff is following Horace Greely's advice and moving to sunny California.

As a parting message I want to take this opportunity to thank you for encouraging articles on TECHNICAL TOPICS for the STACK. I also want to thank you for introducing me to concepts such as raster scanning and the like. Your talks on digital video and PIP were enlightening for new and "seasoned" members of the S/100 sig.

Because you had the patience to listen **and respond** to questions of LICA members, we feel a little less stupid.

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## THE LICA LIBRARY

LICA is proud to own a library of disks (CPM and SIG/M) plus a few shelves filled with books and magazines. These books will be available on loan as of February of 1984. The name/address/phone of the librarian will be published in the STACK as soon as a proper library card system is completed.

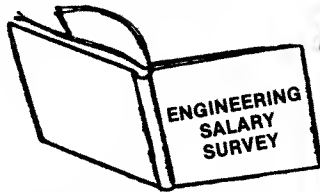
Amid the collection LICA members will find the various newsletters received by us over the past years. In addition, there are many magazines including the first years of BYTE, Doctor Dobbs, Creative Computing, S/100 and Microsystems, etc etc etc.

Some of the books were donated by Frank Davidoff. Before he leaves for California I think it is appropriate that I acknowledge his gift. Here is a partial of the LICA library.

Titles	Author(s)	Publisher	DATE
SUPER-WUMPUS	JACK EMMERICH	PAPERBYTE	1978
COMPUTER MATHEMATICS HANDBOOK	JEROLD & MARTIN CLIFFORD	ALLEN & BACON	1974
MICROPROCESSORS	LAURENCE ALTMAN	MCGRAW HILL	1975
EDN DESIGNERS GUIDE TO SEMICONDUCTOR MEMORIES	ROBERT J FRANKENBERG	HEWLETT PACKARD	1976
BUBBLE MEMORY DESIGN HANDBOOK		INTEL MAGNETICS	1979
SYSTEMS ENGINEERING TODAY	VARIOUS AUTHORS	CHILTON PUBL.	
NEW DIRECTIONS FOR DESIGNERS (MICROPROCESSORS)	EDWARD A TORRERO	HAYDEN	1975
AUERBACH ON TIME SHARING	AUERBACH	AUERBACH	1970
PL/C ESSENTIALS	LAWRENCE J MAZLACK	MCGRAW HILL	1977
MICROPROCESSOR BASICS	S ELPHICK	HAYDEN	1977
MICROPROCESSORS & MICROCOMPUTERS	DAVID COLLINS	INTERGRATED	1973
DATA PROCESSING FOR DECISION MAKING	RICHARD W BRIGHTMAN	MACMILLAN	1969
OWNING YOUR HOME COMPUTER	ROBERT L PERRY	EVEREST HOUSE	1980
MICRO PROCESSOR HANDBOOK	VARIOUS AUTHORS	TEXAS INSTRUMENTS	1975
WORD PROCESSORS	KATHRYN LAYMAN	PRENTICE HALL	1981
KEYPUNCHING (3RD EDITION)	PEGGY HANSON	PRENTICE HALL	1967
MICROPROCESSOR PRODUCTS	USER MANUAL FOR COSMAC MICROPROCESSOR	RCA	1975
FORTRAN AND FORTRAN PROGRAMMING	FREDERIC STUART	WILEY	1966
MORE FORTRAN PROGRAMS FOR ECONOMISTS	LUCY JOAN SLATER	CAMBRIDGE UNIV PRESS	1972
MICROCOMPUTER EXPERIMENTATION WITH THE MEK 6800D2	LANCE A LEVINHAL	PRENTICE HALL	1981
PROCESSOR ARCHITECTURE	SH LAVINGTON	NCC	1976
SNOBOL3 PRIMER	ALLEN FORTE	MIT PRESS	1968
ADVANCED ANALYSIS WITH THE SHARP 5100 CALCULATOR	J M SMITH	WILEY	1979
COBOL FOR BEGINNERS	THOMAS WORTH	PRENTICE HALL	1977
SNOBOL AN INTRODUCTION TO PROGRAMMING	PETER NEWSTED	HAYDEN	1975
PROGRAMMING FOR POETS (USING FORTRAN)	RICHARD CONWAY	WINTHROP	1978
MATHEMATICS IN FUN & EARNEST	NATHAN COURT	MENTOR	1961
BASIC FROM THE GROUND UP	DAVID E SIMON	HAYDEN	1978
GETTING INVOLVED WITH YOUR OWN COMPUTER	STANLEY VEIT & LESLIE SOLOMAN	ENSLAW	1977
AN INTRODUCTION TO ELECTRONIC COMPUTERS	GORDON S DAVIS	MCGRAW HILL	1965
INTRODUCTION TO COMPUTER PROGRAMMING	FRANCIS WALNUT	PRENTICE HALL	1968
360 PROGRAMMING IN ASSEMBLY LANGUAGE	CHAPIN	MCGRAW HILL	1968
PCC REFERENCE BOOK	DWIGHT McCABE	PEOPLES COMPUTING	1977
INFORMATION	VARIOUS AUTHORS	SCIENTIFIC AMERICAN	1966
COMPUTER PROGRAMMING SYSTEMS	E PETER FISHER	HOLT	1964
HOW TO BUILD YOUR OWN MICROCOMPUTER	CHARLES ADAMS	TAB	1980
ELECTRONIC CALCULATORS	H EDWARD ROBERTS	SAMS	1974
INTRODUCTION TO DATA PROCESSING	F R CRAWFORD	PRENTICE HALL	1968
MICROCOMPUTER EXPERIMENTATION WITH THE SDK-85	LANCE LEVENTHAL & COLIN WALSH	PRENTICE HALL	1980
ANS COBOL A PRAGMATIC APPROACH	ROSS OVERBEEK & W E SINGLETARY	MCGRAW HILL	1975
FORTRAN IV SELF TAUGHT	MARIO V FARINA	PRENTICE HALL	1966

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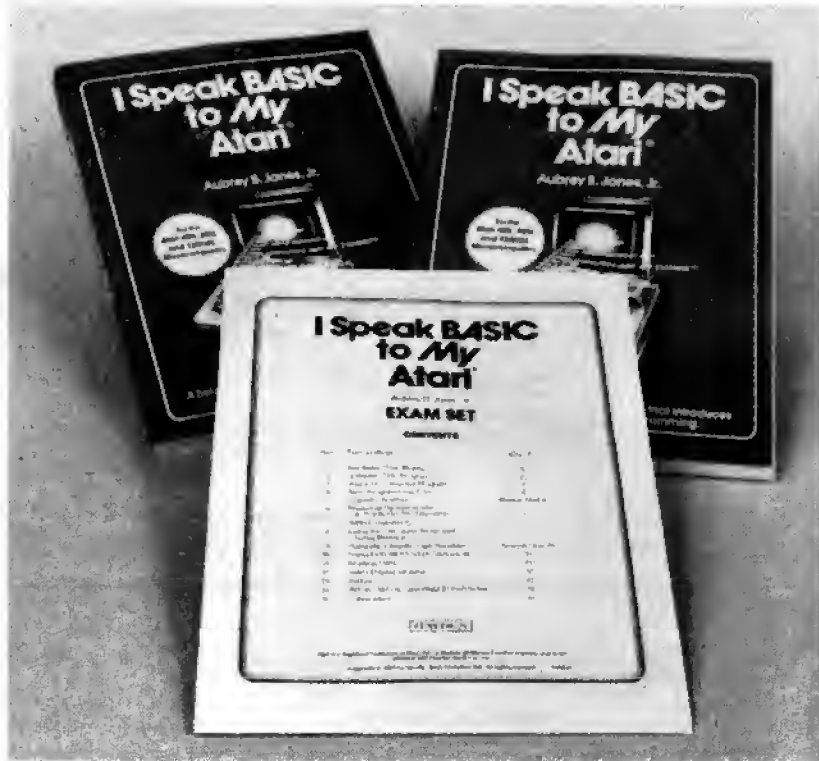


We have all experienced the non-English versions of manuals. Often, manuals, text-books and the like are written and developed by engineers, teachers and other educational types. Nothing is as frustrating as trying to learn, and not understanding the subject matter at hand.

Much of my life has been devoted to fighting the systems developed by educational institutions on the grounds that what they call "teaching" is in reality "telling." In my humble opinion, a teacher's pay should be based on the success of the students in his or her class.

In the same vein, a text-book is rarely worth the paper it is written upon. The computer "business" suffers from much the same disease (non-communication.)

I recently received a book entitled **"I SPEAK BASIC TO MY ATARI"** The author is Aubrey B. Jones, Jr. and the book is published by HAYDEN BOOK COMPANY, INC of Rochelle Park New Jersey. There are no background notes on Mr. Jones.



One of the opening statements: "People control computers and computers cannot think (despite what you might have heard.)" I liked Mr. Jones from that point on.

The layout is an 8 X 11 page with 10 to 20 lines of large text per page. There are illustrations throughout which certainly helps us to learn in an analog fashion.

Mr. Jones often uses a split/screen technique. The left hand side of the page describing your action and the right hand side of the page showing the CRT display.

There are beautiful charts on pages 164, 166 and 168, describing the video screen.

There are many short programming examples which will certainly help the beginner to grasp the more meaningful concepts of programming.

The author uses many traditional methods of explaining items such as the DIM statement and this is where I see the book falling into the usual "telling" rut. Despite announcing his aim (in chapter eight) that you are about to learn the difference between numerics and strings, there is no way other than testing to indicate that the difference is clearly defined in the mind of the student.

**"I SPEAK BASIC TO MY ATARI"** is by far the best book I have seen to date on BASIC programming. If you do not own an ATARI, ignore the special ATARI CHR\$ functions, peeks, pokes, plots and colors. You will still find this "manual" helping you to program in BASIC quite quickly.

I can highly recommend an additional book entitled **"THE BASIC HANDBOOK"** by David A. Lien. The book is published by COMPUSOFT, P.O. Box 19699, San Diego CA 92119

When I started programming I had nothing but a user's manual, some popular magazines, and **"THE BASIC HANDBOOK"** to get me started. **"THE BASIC HANDBOOK"** will not teach you to program. It will serve as a reference. When you reach that point of frustration, after re-reading and retyping a program from a magazine for the 100th time, take out the handbook and you will find an excellent cross reference of various BASIC's.

### Business Card Advertising

The STACK will be printing a page of business cards. Yours can be included. Cost to members is \$25 per year, non members \$50 per year. Your business may be computer related or not.

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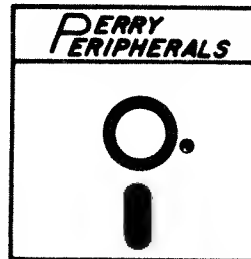
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## THE LICA SOFTWARE DISC

In the October issue of the STACK we started listing the various SIG/M volumes. More are listed on the next few pages of this issue. We will continue to list all of the CP/M and SIG/M volumes until a full listing has been completed. At that point, we will list only the new releases.

This listing is being printed so that members of LICA can have a printed copy of the CP/MUG library listings.

The LICA CP/M users group has prepared an 8" disk containing the catalogs of public domain software. These catalogs are from both the CP/M users group (CPMUG) and the special interest group (SIG/M). This will be referred to hereafter as the LICA disk.

The public domain software covers a wide range of topics, from games to business systems with a few interesting stops along the way.

Some of the in-betweeners are utilities such as "WASH" which cleans up disks and their directories. FMAP shows your system io and memory data. There is MTEST (memory test routine) and FIND. The FIND utility is included on the LICA diskette. It provides an interesting way to locate any subject matter in either catalog.

To save your eyes and your typing finger(s) use FIND to search out the information. A typical FIND command:

**FIND SIG/M 'MODEM'**

The topic (in this case "MODEM") can be any ASCII string. If the string is MODEM, FIND will find all software containing the word MODEM in the title.

**FIND SIG/M 'MODEM7'**

will find all of the software with MODEM7 in the title.

**FIND CPMUG CAT VOLUME**

This is an easy way to get a printout of the volume numbers and their full titles without the detailed description of each of the software "chapters." Each volume has many "chapters" or programs.

The present number of volumes in the CP/MUG is 90. The number of volumes in the SIG/MUG is 145.

This library of diskettes were/and are paid for by dues from the CPM users group of LICA. The word "member" in this article refers to those members of the CPM users group.

The LICA disk is available for \$4.00 for non-members and \$3.00 for members. A temporary package of ten diskettes has been made available to all LICA members compliments of the CP/M users group. LICA members may borrow one for examination.

All diskettes are available including the latest releases. Members of the CP/M users group may borrow diskettes at any time with no charge. All others may purchase disks from the CP/M users group at any time.

For \$2.50 members of the CP/MUG can purchase disks from the library. All others may purchase the same disks for a charge of \$4.00. Included in the charges above are a one dollar donation to the CP/M users group to help defray the cost of new disks. Non-members are also paying a "copying" charge.

Those who wish to know more should contact Ed Dowdell or Al Levy.

Our thanks go to the various CP/Mers around the world who donated much of their time and talent to a) create this library and b) create the -CATALOG files which we are using to print the "SIG/M VOLUME #" pages of the STACK.

# SIG/M volume 13

			a) MITS to CP/M file conversion system
			b) HELP file system
			c) related system support programs
NUMBER	NAME	SIZE	DESCRIPTION
13.1	MITSCNVT.ASM	28K	MITS to CP/M file conversion
13.2	MITSCNVT.COM	7K	
13.3	MITSCNVT.CPM	3K	
13.4	MITSCNVT.DOC	7K	
13.5	MITSCNVT.HEX	8K	
13.6	ABORTSUB.COM	2K	HELP file system
13.7	HELP.ASM	13K	
13.8	SYSLIB.HLP	37K	
13.9	SYSLIB.REL	9K	
13.10	HELP.COM	2K	
13.11	MASM.SUB	1K	updated SUPER DIRECTORY display
13.12	PHelp.COM	2K	
13.13	PHelp.MAC	6K	
13.14	HELP.DOC	4K	
13.15	SD-2/6.ASM	18K	
13.16	SD.COM	2K	space suppression program
13.17	ENTAB.ASM	6K	
13.18	ENTAB.COM	1K	FORTRAN array handling subroutine
13.19	UTIL.FOR	2K	
13.20	LOOPBAK1.BAS	2K	PMMi loop back test

## SIG/M VOLUME 14 HELP file system on major system level software

NUMBER	NAME	SIZE	DESCRIPTION
14.1	HELP.COM	2K	HELP file system describing
14.2	HELP.HLP	7K	HELP file system
14.3	CPM.HLP	31K	CP/M 1.4
14.4	CPM2.HLP	37K	CP/M 2.2
14.5	ASM.HLP	4K	CP/M 1.4 ASM (assembler)
14.6	ASM2.HLP	4K	CP/M 2.2 ASM (assembler)
14.7	MAC.HLP	8K	CP/M MAC (macro assembler)
14.8	MBASIC.HLP	21K	Microsoft BASIC
14.9	CBASIC.HLP	14K	CBasic
14.10	EBASIC.HLP	12K	Basic-E
14.11	CBASIC2.HLP	22K	CBasic-2
14.12	MASM.HLP	8K	MACRO-80 (M80)
14.13	ALGOLM.HLP	13K	ALGOL-M
14.14	C.HLP	17K	BDS 'C'
14.15	FORTTRAN.HLP	7K	Microsoft Fortran
14.16	PASCAL.HLP	10K	PASCAL/MT

## SIG/M volume 15 documentation catalog of CP/M UG volumes 1-42 and SIG/M volumes 1-3 as published by the NYACC

This volume contains the various \*.DOC, ABSTRACT.\*, READ.ME, etc files as contained in the CP/M UG and SIG/M volumes. This was compiled and published by the NYACC to facilitate ready reference of public domain software for the micro-hobbyists. SIG/M volume 12 is the corresponding cross reference to this release.

CATALOG.nnn refers to a CP/M UG release volume nnn SIGMLOG.nnn refers to a SIG/M release volume nnn

## SIG/M volume 16 miscellaneous CP/M utilities

NUMBER	NAME	SIZE	DESCRIPTION
16.1	BYE67.ASM	39K	remote console program for PMMI
16.2	BYE67.DOC	12K	/
16.3	MLIST42.ASM	12K	multiple file list utility
16.4	DU-V75.OBJ	6K	disk utility system
16.5	DU-V75.DOC	5K	/
16.6	DU-V75.ASM	40K	/
16.7	FINDBD42.ASM	33K	creates file of badspots
16.8	APL.MODEM.ASM	36K	CP/M file transfer for Apple 2 using DC Hayes Micromodem 2
16.9	COMAND.LIB	7K	console string processor
16.10	COMBINE.ASM	7K	merges multiple files
16.11	FILE-XT2.ASM	8K	system disk utility display
16.12	MNEMON21.ASM	28K	multi-pass CP/M memory tester

## Sig/M volume 17 miscellaneous CP/M utilities

	Name	Size	Description
	-CATALOG.017		contents of Sig/M volume 17
	-CATALOG.ACK		acknowledgement file
17.1	SCRAMBLE.DOC	2K	command used to encode a CP/M file
17.2	SCRAMBLE.ASM	6K	/
17.3	SORTV.DOC	2K	sort program for variable length records
17.4	SORTV-12.ASM	13K	/
17.5	TAG2.ASM	6K	set/reset display the "no copy" flag
17.6	MNEXEC.COM	3K	MicroNet executive
17.7	MNOVRLAY.ASM	4K	overlay for MicroNet executive
17.8	WHICH/1.ASM	4K	returns size and version of CP/M
17.9	STATUS.ASM	8K	present various systems information under 2.2
17.10	NEWQCAT.ASM	5K	quick catalog routine
17.11	WORM8/8.ASM	7K	memory test
17.12	TFX12/18.ASM	21K	CP/M to CP/M file transfer utility
17.13	XMODEM41.ASM	29K	remote CP/M to CP/M file transfer
17.14	MOVPATCH.ASM	3K	modifies MOVCPM for remote access
17.15	21BIOS.ASM	48K	new BIOS for CP/M 2.0
17.16	21BIOS.DOC	3K	updated CP/M directory display
17.17	21BOOT.ASM	4K	
17.18	MACRO.LIB	18K	
17.19	NPGEN.ASM	9K	
17.20	SPCLMAC.LIB	4K	
17.21	XDIR.ASM	13K	updated CP/M directory display
17.22	XDIR.COM	2K	

# **Sig/M volume 18      miscellaneous CP/M utilities**

	-CATALOG.018		catalog of Sig/M volume 18
	Name	Size	Description
18.1	2411DUMP.ASM	18K	ICOM microfloppy utility
18.2	2411DUMP.COM	3K	/
18.3	MFMACRO.LIB	17K	/
18.4	3812DUMP.ASM	21K	ICOM floppy utility
18.5	3812DUMP.COM	4K	/
18.6	DDMACRO.LIB	18K	/
18.7	AREACODE.ASM	14K	region and state area code search
18.8	AREACODE.COM	7K	/
18.9	BANZAI.ASM	9K	copyright notice protect
18.10	CAT2.ASM	6K	master catalog system for CP/M 2.X
18.11	FMAP3.ASM	7K	/
18.12	UCAT2.ASM	8K	/
18.13	CHAT15.ASM	6K	chat with local remote CP/M operator
18.14	CHAT15.COM	1K	/
18.15	DISPLAYP.ASM	3K	display facilities of ED.COM
18.16	DISPLAY.COM	2K	/
18.17	DISPLAY.DOC	3K	/
18.18	FILE-EXT.ASM	7K	display disk directory including hex data
18.19	FILE-EXT.COM	1K	/
18.20	FILE-XT2.ASM	8K	same as FILE-EXT.ASM with 2.X compatibility
18.21	FILE-XT2.COM	1K	/
18.22	LOOK.ASM	7K	searches for 1-9 byte sequence in memory
18.23	LOOK.COM	1K	/
18.24	MACTIME.ASM	7K	patch for real time clock in MAC.COM
18.25	ASMTIME.ASM	7K	patch for real time clock in ASM.COM
18.26	STATTIME.ASM	6K	patch for real time clock in STAT.COM
18.27	SAP.ASM	6K	updated directory sort for CP/M 2.X
18.28	SAP.COM	1K	/
18.29	XLOOK.ASM	13K	disk/examine/modify utility

# **Sig/M volume 19      miscellaneous Pascal Z programs**

	(original materials from Pascal Z User Group volume 1)		
	-CATALOG.019		contents of Sig/M volume 19
	ABSTRACT.019		comments file
19.1	AUTOBOOT.ASM	5K	autoboot on CP/M cold start
19.2	AUTOBOOT.COM	1K	/
19.3	LINEARP.PAS	11K	simplex algorithm to minimize
19.4	LINEARP.COM	21K	a cost function to constraints
19.5	VARIANT.PAS	1K	demo for variant records
19.6	VARIANT.COM	5K	/
19.7	REVERSE.PAS	2K	demo for linked lists
19.8	REVERSE.COM	6K	/
19.9	EDITFILE.PAS	9K	adapted from S-100 Microsystems
19.10	EDITFILE.COM	13K	/
19.11	RT.PAS	4K	demo program for non-text files
19.12	RT.COM	8K	/
19.13	STARS.PAS	6K	game
19.14	STARS.COM	7K	/
19.15	ADDN.PAS	1K	simple demo to add two numbers
19.16	ADDN.COM	6K	/
19.17	ZMNEMONS.DOC	13K	programming aid
19.18	TRIAN.PAS	1K	demo on FOR loops
19.19	TRIAN.COM	4K	/
19.20	CONCHAR.PAS	6K	utility for command line input
19.21	SCAN2X.PAS	5K	file READ evaluation
19.22	SCAN2X.COM	8K	/
19.23	STRDEMO.PAS	14K	demo on string functions
19.24	STRLIB.DOC	4K	part of STRDEMO.PAS
19.25	LONG.PAS	3K	demo to string words together
19.26	LONG.COM	7K	/
19.27	MAKEREL.DOC	8K	convert REL. files from function blks
19.28	L10S.ASM	7K	novice utility
19.29	CONVERT.PAS	1K	convert gas in liters
19.30	CONVERT.COM	6K	/
19.31	COMPARE.!!!	11K	compare source code files from UCSD
19.32	DUMP.ASM	23K	expanded CP/M DUMP program
19.33	LSTR.PAS	2K	generates a line of various length

# **Sig/M volume 20      PCE System Monitor**

	(original materials from Pascal Z User Group volume 2)		
20.1	SYSMON.DOC	103K	Complete Manual of System Monitor
20.2	SYSMONA.Z80	2K	Central subsystem module
20.3	ASPM1.Z80	11K	Command subsystem, module one
20.4	ASPM2.Z80	12K	Command subsystem, module two
20.5	VECTOR.Z80	3K	Intel I/O standard vector subsystem
20.6	CONSOL.Z80	14K	Console subsystem
20.7	DISK.Z80	5K	Floppy disk subsystem, it ties CPM to the monitor so that both operate as an integrated whole
20.8	CASS.Z80	8K	Cassette subsystem, controls the Dajen/Teletex UCRI, includes Zapple compatible (RI) & (PO) Bit map generator
20.9	BMGEN.Z80	1K	/
20.10	BMGEN.COM	1K	/
20.11	LOADER.Z80	10K	Static loader for system
20.12	LOADER.COM	3K	/
20.13	SYS.COM	16K	Sys Monitor boot-up program
20.14	ONE.HEX	14K	Used with bringing up bit map
20.15	ZERO.HEX	14K	Used with bringing up bit map
20.16	COPYTT.Z80	1K	Sample command, similar to a COM file, a 1 Disk subsystem test utility
20.17	COPYTT.SMC	1K	/

**Sig/M volume 21****miscellaneous Pascal Z utilities**

(original materials from Pascal Z User Group volume 3)

	Name	Size	Description
21.1	AUTHOR.PAS	10K	general purpose "keyword in text"
21.2	AUTHOR.COM	11K	/
21.2a	ADDRESS	1K	/
21.2b	BYTE.MAG	1K	/
21.2c	S100.MAG	1K	/
21.3	CALC.PAS	12K	calculator mode program
21.4	CALC.COM	16K	/
21.5	CPL0T.PAS	2K	simple banner program
21.6	CPL0T.COM	5K	/
21.7	DELAY.PAS	1K	general Pascal Z utilities
21.8	DELAY.REL	1K	/
21.9	DELAY.SRC	1K	/
21.10	INPORT.REL	1K	/
21.11	INPORT.SRC	1K	/
21.12	OUTPORT.REL	1K	/
21.13	OUTPORT.SRC	1K	/
21.14	KEYIN.REL	1K	/
21.15	KEYIN.SRC	1K	/
21.16	NAD.PAS	10K	permuted keyword index program
21.17	NAD.COM	11K	/
21.18	TDIABLO.MAC	6K	driver for Diablo w/Teletex FDC-1
21.19	TDIABLO.COM	1K	/
21.20	DIABLO.Z80	5K	driver for Diablo w/SD Systems S100
21.21	DIABLO.COM	1K	/
21.22	RANDOM.PAS	2K	Fibonacci random number generator
21.23	RANDOM.REL	1K	/
21.24	RANDOM.SRC	4K	/
21.25	REBOOT.COM	1K	rebooting desired file
21.26	STRLIB.LIB	12K	Pascal Z library
21.27	WUMPUS.PAS	12K	Wumpus game in Pascal Z
21.28	WUMPUS.COM	15K	/
21.29	WUMPUS.DOC	4K	/
21.30	CAVE0	1K	/
21.31	CAVE1	1K	/
21.32	CAVE2	1K	/
21.33	CAVE4	1K	/
21.34	CAVE5	1K	/
21.35	ENTRY.PAS	6K	creating SRC files
21.36	ENTRY.COM	9K	/
21.37	ENTRY.DOC	6K	/
21.38	PEEK.PAS	2K	peek and poke in Pascal Z
21.39	POWER1.PAS	1K	demo program on powers of numbers
21.40	POWER1.COM	7K	/
21.41	POWER1.REL	2K	/
21.42	RDR.PAS	7K	an alpha-numeric numbers conversion program
21.43	DU.Z80	29K	updated disk utility using Z80 code
21.44	DU.COM	4K	/
21.45	DU.DOC	1K	/

**Sig/M volume 22****miscellaneous Pascal Z utilities**

(original materials from Pascal Z User Group volume 4)

22.1	CF10.LIB	2K	program to open files
22.2	CONCORD.COM	10K	program that builds an alphabetical
22.3	CONCORD.PAS	11K	listing of distinct words
22.4	COSINE.PAS	2K	Cosine program
22.5	COSINE.REL	2K	/
22.6	COSINE.SRC	6K	/
22.7	GEN5.COM	8K	demo on accessing CP/M files
22.8	GEN5.PAS	5K	/
22.9	GRAPH1.COM	10K	demo on creating a graphic representation
22.10	GRAPH1.PAS	1K	of a function.
22.11	ISORTV1.COM	6K	insertion sort with linked list
22.12	ISORTV1.PAS	4K	/
22.13	LINENOS.COM	8K	keep track of text lines
22.14	LINENOS.PAS	4K	/
22.15	POINT.COM	6K	demo on the use of pointers
22.16	POINT.PAS	2K	/
22.17	RANDOM.MAC	4K	"professional" random number generator
22.18	RANDOM.PAS	1K	simple random number generator
22.19	SINCOS.SRC	5K	sine/cosine utility
22.20	SINCOS.REL	1K	/
22.21	STRLIB.DOC	5K	Ray Penley's latest updated string lib.
22.22	STRLIB.LIB	13K	/
22.23	TRIG4.COM	9K	simple Demo program that builds a
22.24	TRIG4.PAS	2K	short Trig chart
22.25	XREFG2.COM	13K	a binary tree type cross-ref generator
22.26	XREFG2.PAS	18K	/
22.27	ZPTX.COM	8K	very simple text formatter
22.28	ZPTX.PAS	8K	/
22.29	LESSON4.	5K	/
22.30	RECIPE.COM	12K	recipe program
22.31	RECIPE.PAS	17K	/
22.32	RECIPE.MST	1K	/
22.33	RCPDAT.YYY	1K	/
22.34	FCLOSE.COM	8K	three different ways to close a file
22.35	FCLOSE.PAS	4K	in Pascal Z.

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\*\*\*\*\*

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Members can vote in club elections, & place non-commercial classified ads or commercial ads at nominal cost.

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680X	Roger Kaucher	796-8746	
FRAN/APPLE	Susan Heimlich	759-9716	3rd Friday 7:00
IBM - Suffolk	Marvin Freifeld	724-0574	2nd Friday 7:00
IBM - Nassau		724-0574	3rd Friday 7:00
PolyMorphic	Al Levy	293-8368	3rd Friday 7:00
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